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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,397	10/22/2003	Christopher J. Colon	D5472	6806
30409	7590	10/07/2004	EXAMINER	
INTERNATIONAL ENGINE INTELLECTUAL PROPERTY COMPANY 4201 WINFIELD ROAD P.O. BOX 1488 WARRENVILLE, IL 60555			KERNS, KEVIN P	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/691,397

Applicant(s)

COLON ET AL.

Examiner

Kevin P. Kerns

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "44a" (Figure 6). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because some of the type sizes in Figures 3 and 5 are too small to be read clearly. Also, the numbers "31" (semi-circular gear in Figure 5) and "18" (horizontal conveyor in Figure 7C) are not clearly written. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note: In this instance, the abstract recites the legal terms "comprise", "comprises", and "means" on several occasions.

4. The disclosure is objected to because of the following informalities: in paragraph [0034], 1<sup>st</sup> line, "48" should be changed to "45". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 1, 6, and 8, the limitation "said plurality of core assembly fixtures being inclined toward the central portion of the rotating table" has multiple meanings, including that the geometry of the table surface is at an incline, that the core assembly fixtures are at an incline, or that a pivotable structure on the table is at an incline. Furthermore, the plurality of core assembly fixtures could be fixtures with respect to the core and table, or with respect to one of the core components as related to one or more other core components. Separate core components themselves are not considered as a portion of the apparatus, only an article for work to be performed by the apparatus. See MPEP 2114 and 2115. As a result, the limitation "plurality of core assembly fixtures" should be distinctly set forth as affixed to the rotating table (or at least as a portion of the apparatus rather than an article).

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With regard to claim 5, 11<sup>th</sup> line, the unclear limitation "third means for pivoting said truck with respect to said truck" should be revised appropriately. It is believed that the last term of this limitation should be changed from "truck" to "supports".

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 4, 6, 8, and 10 rejected under 35 U.S.C. 102(b) as being anticipated by Hauser-Lienhard (US 3,741,281).

Hauser-Lienhard discloses an apparatus for carrying out a full-form casting process, in which the apparatus includes a rotating table (turntable 1) being rotatable to a plurality of operation positions (stations A-F), such that the rotating table carries a plurality (six) of mold/core assembly fixtures in the form of flasks 7 that hold molds/cores and patterns therein; gripping means for the flasks 7, which includes cantilevered turntable means that allow for flasks 7 to tilt/incline toward the central portion of the rotating table around pivotable trunnions 6 driven by tilting mechanism 8, such that the tilting mechanism 8 includes motor 8a, drive sprocket 8b (spur gear), chain 8c, and driven sprocket 8d; and a transferring means that transfers a mold/core fixture to horizontal conveyor 35 (for cast parts) and/or horizontal conveyor 38 (for mold/core sand from the fixture), with the transferring means cooperating with the gripping means

to serve as a pick-and-place assembly (abstract; column 3, lines 9-34 and 58-68; column 4, lines 1-37; column 5, lines 16-68; column 6, lines 1-68; column 7, lines 1-13; and Figures 1-4).

***Allowable Subject Matter***

9. Claims 2, 7, and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claim 5 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest the details of the pick-and place assembly (or means for engaging a completed core assembly), with the details including the following structures: 1) a framework that is a) movably carried by a plurality of vertical supports straddling a horizontal conveyor and b) is drivable toward and away from the rotating table; 2) a truck movably carried by the framework and drivable both horizontally along the framework between the supports and pivotally with respect to the supports; and 3) a plurality of piston/cylinder units with their cylinders being carried by the truck and with their pistons extendible below the truck, such that the piston/cylinder units carry a core assembly gripping mechanism at their distal ends (independent claim 5; and dependent claims 2, 7, and 9).

**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Peirce, Carignan, Richard, Grum-Schwensen, and Laurino references are also cited in PTO-892.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns 10/5/04*  
Examiner  
Art Unit 1725

KPK  
kpk  
October 5, 2004